

WHAT IS CLAIMED IS:

1. A wiring substrate, comprising a short ring formed along a periphery of the substrate, an independent line pattern that is coplanar with and independent of the short ring, a continuous line pattern that is located closest to the independent line pattern and is coplanar and continuous with the short ring, and an insulating film covering the independent line pattern and the continuous line pattern,
5 wherein the insulating film includes a first through hole reaching the independent line pattern and a second through hole reaching the continuous line pattern.

10 2. The wiring substrate of claim 1, wherein a distance between the first through hole and the continuous line pattern is longer than a distance between the second through hole and the continuous line pattern along a virtual line extending between the first through hole and the second through hole.

15 3. A wiring substrate, comprising a short ring formed along a periphery of the substrate, an independent line pattern that is coplanar with and independent of the short ring, a first continuous line pattern that is coplanar and continuous with the short ring, a second continuous line pattern that is located between the independent line pattern and the first continuous line pattern and is coplanar and continuous with the short ring, and an insulating film covering the independent line pattern and the first and second continuous line patterns, wherein:
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the insulating film includes a first through hole reaching the independent line pattern, a second through hole reaching the first continuous line pattern, and a third through hole reaching the second continuous line pattern;

25 the independent line pattern and the first continuous line pattern are electrically connected to each other by a connection pattern bridging the second continuous line pattern via the first through hole and the second through hole; and

the third through hole is formed in an area other than an area where the

connection pattern is formed.

4. A wiring substrate, comprising a short ring formed along a periphery of the substrate, an independent line pattern that is coplanar with and independent of the short ring, a first continuous line pattern that is coplanar and continuous with the short ring, a second continuous line pattern that is located between the independent line pattern and the first continuous line pattern and is coplanar and continuous with the short ring, and an insulating film covering the independent line pattern and the first and second continuous line patterns, wherein:

the insulating film includes a first through hole reaching the independent line pattern and a second through hole reaching the first continuous line pattern;

the independent line pattern and the first continuous line pattern are electrically connected to each other by a connection pattern bridging the second continuous line pattern via the first through hole and the second through hole;

the second continuous line pattern includes a protruding portion that is located in an area other than an area where the connection pattern is formed and is protruding toward the independent line pattern while being coplanar with the short ring; and

a distance between the first through hole and the second continuous line pattern in the area where the connection pattern is formed is longer than a distance between the first through hole and the protruding portion.

5. The wiring substrate of claim 4, wherein the insulating film includes a third through hole reaching the protruding portion in the area where the protruding portion is formed.

6. The wiring substrate of claim 5, wherein a distance between the first through hole and the second continuous line pattern in the area where the connection pattern is formed is longer than a distance between the first through hole and the third through hole.

7. The wiring substrate of claim 5, wherein the connection pattern is

electrically connected to the protruding portion via the third through hole, and the protruding portion is independent of the second continuous line pattern.

8. The wiring substrate of claim 3, wherein a distance between the first through hole and the second continuous line pattern is longer than a distance between the third through hole and the second continuous line pattern along a virtual line extending between the first through hole and the third through hole.

9. The wiring substrate of claim 5, wherein a distance between the first through hole and the second continuous line pattern is longer than a distance between the third through hole and the second continuous line pattern along a virtual line extending between the first through hole and the third through hole.

10. A display device, comprising the wiring substrate of claim 1.

11. A display device, comprising the wiring substrate of claim 3.

12. A display device, comprising the wiring substrate of claim 4.

13. A method for manufacturing the wiring substrate of claim 3, comprising

15 the steps of:

forming the first through hole and the second through hole in the insulating film;

forming a conductive film on the substrate; and

patterning the conductive film so as to form the connection pattern.

20 14. A method for manufacturing the wiring substrate of claim 4, comprising

the steps of:

forming the first through hole and the second through hole in the insulating film;

forming a conductive film on the substrate; and

patterning the conductive film so as to form the connection pattern.

25 15. A method for manufacturing the wiring substrate of claim 7, comprising

the steps of:

forming the first through hole, the second through hole and the third through hole in the insulating film;

forming a conductive film on the substrate;

5 patterning the conductive film so as to form the connection pattern; and

cutting off a connecting portion between the protruding portion and the second continuous line pattern.